



Code: 3179
Family: Health and Human Services
Service: Health and Welfare
Group: Medical and Social Service
Series: Medical Technician and Laboratory

CLASS TITLE: MICROBIOLOGIST IV

CHARACTERISTICS OF THE CLASS

Under general supervision, supervises staff engaged in the microbiological testing and analyses of water samples, and performs related duties as required

ESSENTIAL DUTIES

- Supervises, assigns, and reviews the work of staff engaged in the preparation and conduct of microbiological testing of specimens collected from water samples, ensuring completeness, accuracy, and compliance with testing standards and procedures
- Conducts complex analyses of water samples to determine the level of contaminants
- Researches and recommends improved methods of microbiological analyses
- Supervises the maintenance of records and the preparation of reports on samples collected and tested ensuring procedures comply with state and federal regulations
- Calculates, analyzes, and interprets test results and prepares related reports
- Trains staff in analytical methods, techniques, and standard operating procedures used in microbiological testing and analyses
- Conducts laboratory research of water treatment issues
- Assigns and supervises the conduct of special tests initiated as a result of complaints
- Supervises the preparation of work activity and project status reports
- Supervises the care and maintenance of the laboratory
- Coordinates and monitors the ordering, maintenance, and upkeep of laboratory supplies, instruments, and equipment
- Supervises and performs microscopic examinations of water to isolate, identify, assess, and study microorganisms, as required
- Addresses public forums as an expert in the microbiological analyses of water, as required

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's Degree in Microbiology, Bacteriology, Biology, or a directly related field, plus two years of experience in microbiological analysis; or an equivalent combination of education, training and experience provided that the minimum degree requirement is met

Licensure, Certification, or Other Qualifications

- Employees are required to obtain Illinois Department of Public Health Laboratory Certification–Registry #17506 upon 6 months of employment

WORKING CONDITIONS

- Exposure to hazardous chemicals

- Exposure to microorganisms and infectious waste
- Exposure to fumes or dust

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer)
- Safety equipment
- Testing or monitoring equipment
- Microbiology equipment (e.g., microscopes, scientific calculators)
- Biological and chemical testing equipment (e.g., electron microscopes, light microscopes, x-ray analyzers)
- Laboratory equipment (e.g., sterilizers, scales, centrifuges)

PHYSICAL REQUIREMENTS

- Some moving or lifting laboratory equipment and supplies

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Considerable knowledge of:

- applicable federal, state, local laws, regulations, and guidelines
- *laboratory practices and methodology
- *applicable computer software packages and applications
- *microbiological equipment, instruments, materials, and supplies
- *microbiological testing, research, and analytical practices and procedures
- *Biology

Some knowledge of:

- supervisory methods, practices, and procedures
- record keeping methods, practices and procedures

Knowledge of applicable City and department policies, procedures, rules, and regulations

Other knowledge as required for successful performance in the Microbiologist III class

Skills

- *ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- *ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- *CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- *MATHEMATICS - Use mathematics to solve problems
- *SCIENCE - Use scientific rules and methods to solve problems

- *MANAGEMENT OF MATERIAL RESOURCES - Obtain and see to the appropriate use of equipment, facilities, and materials needed to do certain work
- MANAGEMENT OF PERSONNEL RESOURCES - Motivate, develop, and direct people as they work and identify the best people for the job
- *MONITORING – Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- JUDGEMENT AND DECISION MAKING – Consider the relative costs and benefits of potential actions to choose the most appropriate one
- *COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- *INSTRUCTING - Teach others how to do something
- *QUALITY CONTROL ANALYSIS - Conduct tests and inspections of products, services, or processes to evaluate quality or performance

Other skills as required for successful performance in the Microbiologist III class

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE - Communicate information and ideas in writing so others will understand
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- REASON MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem
- IDENTIFY PATTERNS - Identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material
- COMBINE AND GROUP THINGS - Generate or use different sets of rules for combining or grouping things in different ways
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- ORGANIZE INFORMATION - Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations)

Other abilities as required for successful performance in the Microbiologist III class

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resource
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